/24 cont'd/

243 only the second period. If the dry fields are not planted with miscellaneous crops during the first period, they are simply left fallow. But in actuality, even in the Li area, wet rice fields which can be cultivated twice a year, are very few, and those which are held by the Miao are even rarer.

The Miao still do not know the use of the sickle for reaping in harvesting. They gather the stalks by hand, tie them together in sheaves, and then put them into a ho-ts'ang /drying bin/ to be dried by exposure to the wind or by the sun. The rectangular drying bin is built of bamboo with thatch on top and all four sides left open. The floor is made of long planks on which the grain is spread. After it has been thoroughly dried, the grain is moved to a granary, which is also rectangular, is built of wooden boards covered with thatch, and has a raised floor. It is all shut up except for a door on the front side. The grain is neatly stored in the granary and is not taken out until it is needed. The milling process consists of placing the grain into a rectangular wooden mortar in which the grain is pounded with a wooden pestle to remove the husks. /25/ Then the grain is once more put into a wooden mortar to be hulled into rice. The rice mortar is circular just like that used by the Li.

311 The everyday food of the Miao comes almost entirely from till-
241 ing the mountain slopes. Only a very few comparatively wealthy Miao own flat rice fields. Since each piece of hilly land cannot be used continuously for more than two or three years before the soil becomes depleted, it is necessary to stop planting it. For instance, a mountain area planted in this way may be quite large, but it is not difficult to have the total area completely tilled by rotation
[34] within eight to ten years, and the soil of the whole area must be allowed to recover. At this time then the Miao must seek fresh
166 land in other localities. Therefore, the Miao frequently move once every few years, or at least once in a decade; thus their life is as unsettled as a drifting ship. I have observed this situation with my own eyes during the period of my study.

244 They cultivate very few vegetables, but sugar cane and bananas
245 may be seen occasionally.

[159 cont.]

271 The "Méo" habitually drink water, but they make alcohol
273 from grain (distilled or fermented) which they often drink without the slightest moderation.

They smoke tobacco in the bamboo water pipe or in the long
276 pipe [160] with the small bowl and mouthpiece of porcelain, of a model analogous to that of the "Man" pipe.

They smoke opium in a very moderate manner. Big opium smokers are rare among the "Méo" of Upper Tonkin.

[249] Sometimes they cultivate hashish, but never make use of it.

The "Méo" are, above all, farmers and they cultivate upon
241 their mountains the various grains and vegetables enumerated above.
311 They utilize to this end parcels of land capable of growing vegetation, even the tiniest, sides of knolls, shallow basins, clefts in the rocks.

The maize is sown in the fourth month and is spread about on
243 all the parcels which can be cultivated, often by clumps of two or three hills. The ground is scratched very lightly, with the plough or with the hoe. It receives a little manure at the exact spot where the seed will be deposited. The harvest takes place towards the eighth month. It is not unusual to see the fields planted to maize—
249 as we have seen above for certain irrigated rice fields — transform themselves into ground for the growing of opium, which is planted toward the ninth month, after the earth has been mixed with a few ashes. The opium harvest takes place the third month and the ground
[243] again is given over to the cultivation of maize or of sorghum. The buckwheat generally produces two crops a year.

248 The "Méo" also cultivate hemp, to which they consecrate their best areas of ground (bottoms of cirques or of valleys). The hemp is sown the fourth month and reaped the seventh month.

231 The "Méo" keep a few bees. They often have hives whose honey is used in cake-making.

They raise their numerous vegetables either in gardens laid
244 out near their cabins, or in the maize fields at the same time as the maize.

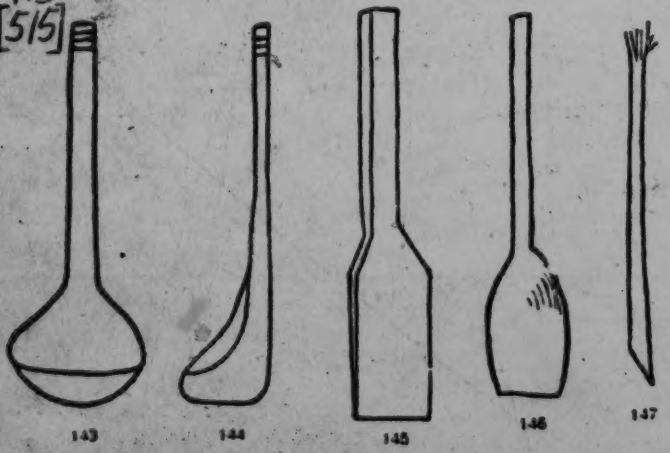
The agricultural implements consist of ploughs of a primitive
412 model with ploughshares of iron, and some hoes. For the harvest,
407 large scythes and billhooks are used.

/306 cont./

412 The household and kitchen implements of the
252 Meau are very numerous. As was mentioned, all
[243] the grain and leguminous products are husked in the
[244] foot-operated mortar built into the cooking area (Fig.
139). /Figs. 140-142 appear here./

256 /307/ For grinding the kernels of grain and maize the large mill shown in Ill. 94, and Fig. 140 is used. The lower-millstone half (Fig. 141) is immovable and is provided with an axle (A), which is fitted into the opening (S) of the upper stone (Fig. 142). Both millstone halves are provided with grooves (R), which run in various directions. The upper eccentric millstone (Fig. 142) is connected with a horizontal pole. When this is swung forward and backward, the movable-millstone half turns. In this, on the top, a hole (O) is chiseled out, through which the grain is poured in. According to whether one lengthens or shortens the

415
[515]



Figs. 143-146. Dippers and Ladles of the Meau. Fig. 143. Bamboo dipper. Fig. 144. Side view of the same, 1/5 nat. size. Figs. 145 and 146. Wooden stirring ladles, 1/10 nat. size. Fig. 147. Toothpick, 1/3 nat. size.

1 [See cat 116, p644 - ANALYST]

/358 cont./

249 2. Poppies. The Meau cultivate three different types, which are recognizable by the color of their flowers. Accordingly, one distinguishes white, red, and purple poppies. At the end of June they are sowed in soil which has been loosened with digging sticks. Tobacco, spinach-like vegetables, or [244] onions also grow in the poppy fields at the same time, which further increases the great importance of the poppy fields for the Meau. Six months after the sowing of the poppies the 249 making of opium begins. For this the nearly ripe poppy heads 276 are slit (Ill. 73)[1] with a three-bladed knife (chapter, "Food and Stimulants," Fig. 289). A whitish juice, the opium, oozes out and is carefully collected. After it has been properly [439] treated, it represents the most valuable article of trade of the Meau. After the opium harvest comes that of the now ripened 249 poppies, which are particularly valued as food on account of [262] their high oil content. Moreover, poppy fields, as was said, can be laid out on old, harvested maize fields, so that the least amount of land is required for their cultivation. If one adds to that the fact that mixed poppy fields remain productive for ten to twenty years, depending on the fertility of the soil, it may be said that they, next to the rice fields, certainly constitute the most important agricultural production area of the Meau.

3. Sugar Cane. Early in May the Meau set out six types, which ripen at different times. Furrows about 17 to 18 centimeters deep are made with the hoe (Figs. 269 and 270) 90 centimeters apart, and the shoots are set out with the help of a setting peg at uniform intervals of about 30 centimeters. At the earliest, harvesting commences eight months after the ensuing cultivation. These sugar-cane beds are productive for three years on the average and then lie fallow.

244 4. Yams. As soon as the cultivation of sugar cane is ended, four different types of this potato-like tuber is planted. For this purpose small pits are dug about 80 centimeters apart, the /359/ pieces of the seed tubers, cut up according to the bud-eyes, are put in, and the pit is covered. The harvest of the early ripening types begins as early as four months later.

1 [see Cat 116, p573 - ANALYST]

39: Bernatzik--487 E-5 (1936-1937) 1947 AO1 Thailand
Miao AES

/359 cont./

244 On the average, these yam fields are productive equally as long as the rice fields.

5. Cucumbers. Two types of them are sowed at the same time as the rice. As a rule, the procedure is simply to mix the [243] rice seed with the cucumber seeds so that it is put in the little seed-holes with them. Cucumbers are important for the Meau because they can be harvested as early as two or at most three months after sowing, hence at a time when the Meau have the least amount of food on hand, since the old harvest has been used up by then, but the new products are not yet ripe. In accordance with their cultivation together with the rice, cucumbers are cultivated in one field only as long as it is productive for rice cultivation.

6. Radishes of only a single type are known and customarily [243] cultivated among the Meau. Radish seeds, too, are mixed with the rice and hence cultivated simultaneously with it. Usually [262] they are eaten raw by the workers in the fields.

7. Beans. Four kinds of beans are planted at the same time as the rice but in special fields. For this a small hole is punched with the digging stick, two seed beans are put into it, and the planting hole is closed by a step with the heel as one walks on. Bean fields, which remain productive for two years, receive no further care; bean poles are unknown.

243 8. Maize, which is the principal food crop of the Meau in [184] Tonkin, on which Lajonquière (1) reports, is in only eighth

1. II, p. 309.

place in northern Thailand. It is cultivated in three types [244] and in general together with gourds in special fields. At the end of April at the earliest and the beginning of June at the latest, small holes are punched with the digging stick at intervals of half a meter. In them, besides three or four kernels of maize, two or three gourd seeds are always slipped [244] in, and the hole is closed. For the earliest types of maize the harvest begins as early as three months after sowing, which makes maize just as important as the likewise early ripening

39: Bernatzik--488 E-5 (1936-1937) 1947 A01 Thailand
Miao AE5

/359 cont./

243 cucumbers in /360/ helping to bridge the most difficult periods in the nutrition of the Meau. For maize, rotation of the fields must take place after each year; as a rule, maize is followed in the next year by poppies of various types.

244 9. Leafy Vegetables. This is a matter of spinach-like plants of many kinds which are cultivated at the same time as the poppies. Their special importance for the Meau lies in their early initial harvest. It can begin as early as two weeks after sowing, whereas the principal harvest does not come to its final conclusion until months later, at the same time as that of the poppies.

249 10. Tobacco in two types is sowed, in the same way as the green vegetables, together with the poppies. The tobacco is harvested five months after cultivation.

244 11. Onions of two types, one white and one red, are known to the Meau. They are set in the poppy fields when the fine seed of the latter has already sprouted.

12. Sesame, from the seeds of which oil is obtained, is set out only after the cultivation of the rice and is harvested four months later. The sesame fields remain productive equally as long as the rice fields and finally lie fallow equally as long.

243 13. Buckwheat, to be sure, is likewise important for the Meau in Thailand, but it does not by far have the significance that Savina (1) gives it by putting it directly after rice and

1. II, p. 216.

maize. It stands out in that area even more impressively according to Lajonquière (2), who even speaks of two buckwheat

2. II, p. 310.

harvests a year, the first of which takes place in the fourth month, the second in the twelfth.

/360 cont./

243 14. Sorghum, negro corn, is of minor importance for Thailand, to be sure, but must be mentioned here for the sake of completeness. Sowing and harvesting take place at the same time as that of maize, which corresponds with the observations made by Savina (1) /see footnote 1 above/ in Tonkin.

244 In general the customs of the Meau here and there seem [184] to correspond with regard to agriculture. Lajonquière (2) /see footnote 2 above/ also mentions a number of kinds and varieties of vegetables, such as beans, peas, gourds, broad [243] beans, cucumbers, and in addition a kind of grass, called [252] "caolien," out of which the Meau there bake cakes. These field products, classified by the author under the name of "secondary cultures," /361/ are planted, according to his description, between the furrows of the maize fields and ripen at the same time as the latter.

351 Vegetables, aside from the large-scale cultivation in the 241 fields, are also cultivated in gardens for daily use by the [244] Meau in Thailand. Lajonquière (1) noticed special house-

1. II, p. 310.

gardens in Indochina: "In the gardens, which they arrange around the houses, the Meau harvest radishes, eggplant, [249] beans, peas, and also tobacco in sufficient quantities for their personal needs."

[184] The Meau in Thailand, to be sure, do not plant eggplant, but in the vicinity of their houses they cultivate in particular [245] bananas and fruit trees, such as lemon, lime, and in rare cases orange trees. According to the statements of the author just cited (2) "the houses of the Meau in Indochina, on the

2. Page 309.

other hand, are surrounded by a circle of fruit trees which are not fenced off on the outside." The multiplicity of the [114] kinds of fruit there is clearly expressed in a description by

/VIII cont./

286 Ill. 88. Weaving the spun material made from hemp. Portable horizontal loom with treadle device. The warp is stretched with the help of a belt around the loins. The woman at the loom is just about to strike home the sword (cf. Ill. 89).

Ill. 89. The weaver is making preparations for the woof. The shuttle is carved out of wood. The inserted bobbin, around which the hemp thread is wound, is made of bamboo. The stick that separates the two layers of thread is made out of the same material.

283 Ill. 90. Spinning machine. With its help, four threads, which the woman doing the spinning holds in her left hand, are twisted together. By means of the little stick in her right hand, she prevents the threads from becoming tangled. She turns the flywheel with both feet.

Ills. 91-96. The harvest.

262 Ill. 91. The ripe squash at the edge of the fields of mountain
●[244] rice are gathered. The juicy, tart meat of the raw fruit is especially tasty in the great heat.

243 Ill. 92. The stalks of the mountain rice are cut individually, with the help of the small crescent-shaped harvesting knife, about 30 centimeters below the ear and then bundled. The straw is left standing in the fields and rots.

Ill. 93. Bringing in the harvest. Each member of the family loads himself with as many bundles of ears in carriers and baskets as he can carry. Then there is a walk for
[484] hours over the narrow mountain paths to the village. The men carry in their hands the crossbows with arrows in place ready to shoot.

/IX/

252 Ill. 94. Peculiar mills of the Meau. The lower-millstone half
256 is fixed, the upper part is eccentrically attached to a horizontal pole. When the latter is swing back and forth, the movable-millstone half turns. A hole is chiseled in the top of it, through which the grain is poured in. According to whether the wooden axle which connects